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USING STUDENT-GENERATED VIDEOS TO LEARN INTERNAL CONTROL IN ACCOUNTING INFORMATION SYSTEMS COURSES

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ABSTRACT

Educators consider the video learning approach an effective method to deliver educational content as compared to the traditional method of books and written materials. This paper presents a project that involves student-generated videos to learn internal control in an undergraduate accounting information systems course. We believe that this video learning approach is an engaging way for students to be self-directed learners in learning internal control and complements the written materials in the textbook. The survey results show that most of the respondents viewed the learning experience of the video project positively. The results also indicate that the video project was effective in helping students to learn internal control. Students also commented that they will recommend other courses to adopt video learning.

Keywords: video learning, collaborative learning, internal control

INTRODUCTION

Educators are incorporating information and communication technology in the curriculum to enhance student learning (Jebeile and Abeysekera, 2010; Lusher et al., 2012; Seow and Wong, 2016; Tan and Ferreira, 2011). Educators consider the technology-enhanced multimedia approach an effective method to deliver educational content as compared to the traditional method of books and written materials (Alsadhan et al., 2014; Cheng and Swanson, 2011; Gavira and Omoteso, 2013; Seow and Pan, 2016).

Cheng and Swanson (2011) defined multimedia e-learning as the "dissemination of material in a computer-based presentation by combining text, graphics, video, animation and sound through the Internet". A key multimedia learning approach is video learning. Educators have advocated the pedagogical benefits of using videos in teaching (Holtzblatt and Tschakert, 2011; Saltrick et al., 2004). Prior studies suggest that video learning can be a platform to stimulate intellectual student engagement (Cameron and Dickfos, 2014; Evans, 1998; Ng, 2013, Sweeder, 2007). Campbell and Loyland (2013) claimed that the ability to communicate using the video medium is a relevant skill for accounting students due to the increasing use of video in the business world.

This paper presents a project that involves student-generated videos to learn internal control in an undergraduate accounting information systems (AIS) course. We have been receiving student comments on end-of-course evaluation feedback indicating that internal control is a dry topic to learn from the textbook and lecture slides. Thus, we were keen to get students to produce their videos on internal control so as to increase their interest and better understand internal control in their everyday life. We believe that this video learning approach is an engaging way for them to learn internal control and complements the written materials in the textbook.

In addition, students have to comment on videos produced by their peers. We feel that this approach facilitates collaborative learning.

We organize the remainder of the paper as follows. First, we discuss the benefits of video learning as a pedagogical tool. Next, we describe the video project that was used to learn internal control in an AIS course. Last, we present the feedback provided by the students who participated in the AIS video project.

VIDEO LEARNING AS A PEDAGOGICAL TOOL

One form of multimedia learning is the use of videos. There are various benefits of using videos as a pedagogical tool. Videos increase enthusiasm about the information presented and improve motivation to learn (Holtzblatt and Tschakert, 2011). Videos also engage students to a greater extent and give students a better understanding of topics as compared to traditional textbook and lectures (Addams et al., 2013). Videos serve as a visual medium to bring principles to life as “seeing is believing” (Addams et al., 2013). Videos help to reinforce concepts learnt in textbooks and encourage stimulating discussion (Greene and Crespi, 2012). Besides, watching videos is regarded as a common activity in students’ lives (Addams et al., 2013).

There are various approaches to video learning. Popular sites such as YouTube offer instant access to a vast range of videos. Instructors can also produce their own videos. Videos generated by instructors resulted in an increase of satisfaction with the course and led to increase in quantity and quality of discussions (Draus et al., 2014). However, the drawback of watching videos is that students can choose to be a passive audience and simply ‘consume’ the lecture (Holtzblatt and Tschakert, 2011). Thus, educators are recommending that students should create their own videos in order to be active learners during the video learning process

(Greene and Crespi, 2012; Holtzblatt and Tschakert, 2011; Stratton and Julien, 2014).

Greene and Crespi (2012) allowed students to earn extra credits through a video project on a chosen accounting topic. Students who created videos rated the video project more positively compared to those who only viewed the videos. They found that students viewed the video project positively and would recommend video learning for future classes (Greene and Crespi, 2012).

Holtzblatt and Tschakert (2011) designed a student video project, in which students created videos involving expert interviews on International Financial Reporting Standard. Results from the video project were positive, where students created high quality videos and learnt skills such as interaction with accounting professionals and gaining expertise in new topics (Holtzblatt and Tschakert, 2011).

Students used the Xtranormal animation software to create cartoon videos on human resource management topics (Stratton and Julien, 2014). They reported positive outcomes, of which include creative freedom which promoted greater engagement with material, in-depth learning, greater understanding of concepts. Stratton and Julien (2014) suggest that the creative freedom in student video projects help students to retain information better as compared to when students adopted a more passive role.

There are several benefits of student video projects. Student-generated videos require that the students have high levels of understanding on the subject matter. Multiple retakes and editing would also repeatedly reinforce concepts covered in the video (Greene and Crespi, 2012). In addition, student video project would require students to be active learners as compared to being passive learners in traditional classroom environments (Holtzblatt and Tschakert, 2011). As students are actively involved in generating the video, they learn to take ownership of their

own learning and develop into self-directed learners (Ng, 2013). From a social standpoint, students would be expected to put in greater effort, so as to avoid embarrassment from their peers (Greene and Crespi, 2012).

The two major disadvantages of video learning relate to the technical requirements of the project, and the contribution to the final grade (Holtzblatt and Tschakert, 2011). Some students felt that the amount of time spent on the video project did not correspond to the weightage of the project component grade. The amount of time could be due to the steep learning curve of video technology, which could be reduced by professors being familiar with the technology or through partnering with other departments and experts (Holtzblatt and Tschakert, 2011).

THE AIS VIDEO PROJECT

This paper presents a project that involves student-generated videos to learn internal control in an undergraduate AIS course (see Appendix for selected screenshots). The design of this video project helps students improve their understanding of internal control by acting as a supplement to lectures to reinforce the concepts.

The AIS video project is hosted on a Google Site and is a close platform where only enrolled students can log in. Each group was required to create a video related to internal control. Students were provided with a user guide on creating videos. The length of the video was capped at three minutes. Students can choose any format for the video such as acting, using the GoAnimate software to create animations or Videoscribe for whiteboard-style animations. Besides creating the video, students were required to write the learning objectives and a discussion question on the discussion forum to trigger discussion in order to facilitate collaborative learning.

Collaborative learning provides a sense of belonging, enabling students to experience a sense of emotional connection with both peers and lecturers (Willis et al., 2013). The interaction with peers and their comments on peers' work was cited as an enjoyable experience, while at the same time contributing to their learning. It is also shown that being participative helped build a sense of collegiality and made students feel the need to contribute as well (Willis et al., 2013). Furthermore, being able to review their peers' work served as a feedback, which allowed students to evaluate their own understanding (Hattie and Timperley, 2007).

Groups which participated in this video project were awarded up to five bonus marks for class participation. Four marks were awarded for producing the video and one mark was awarded for participating in the discussion forum, providing comments on other videos and voting. Each student completed a peer evaluation based on the marking rubrics of seven points for "Demonstration of AIS content" and three points for "Originality and Creativity". Students were not allowed to rate their own videos and the group with the highest score for their video won a $100 voucher.

STUDENT FEEDBACK

Over a period of three semesters, 200 students voluntarily participated in the survey (see Table 1 for survey feedback). We asked students to rate their overall satisfaction with the AIS video project on a seven-point Likert scale ranging from strongly disagree (= 1) to strongly agree (= 7). The mean satisfaction rating of 6.04 (SD = 0.83) indicates that most of the respondents viewed the learning experience of the AIS video project positively. Students also indicated that the learning goals of the AIS video project were clear (mean = 6.10, SD = 0.73)

We also asked students to rate the effectiveness of the AIS video project in enhancing their learning of internal control on a seven-point Likert scale ranging

from strongly disagree (= 1) to strongly agree (= 7). The mean effectiveness rating of 5.68 (SD = 0.96) indicates that the AIS video project was effective in helping students to learn internal control. Students indicated that the AIS video project challenged them intellectually (mean = 5.16, SD = 1.12) and was an enjoyable way to learn internal control (mean = 6.13, SD = 0.85).

We then asked students about their perception of video learning on a seven-point Likert scale ranging from strongly disagree (= 1) to strongly agree (= 7). The results indicate that students were positive about the video learning approach. A large majority of respondents indicated that they will recommend the video project for future AIS classes (mean = 6.01, SD = 0.96). They also recommend other courses to adopt video as a learning pedagogy (mean = 5.62, SD = 1.19).

Students also provided qualitative feedback (see Table 2 for selected comments). Students valued the video project as an engaging way to learn internal control. They claimed that the video project assisted them in understanding internal control. Findings of this study corroborate the findings of prior studies that video learning enhance student learning.

CONCLUSION

Educators consider the multimedia approach an effective method to deliver educational content as compared to the traditional method of books and written materials. A key multimedia learning approach is video learning.

This paper presents a project that involves student-generated videos to learn internal control in an undergraduate AIS course. We have been receiving student comments on end-of-course evaluation feedback indicating that internal control is a dry topic to learn from the textbook and lecture slides. Thus, we were keen to get students to produce their videos on internal control so as to increase their interest

and better understand internal control in their everyday life. We believe that this video learning approach is an engaging way for them to learn internal control and complements the written materials in the textbook.

The survey results show that most of the respondents viewed the learning experience of the AIS video project positively. The results also indicate that the AIS video project was effective in helping students to learn internal control. Students also commented that they will recommend other courses to adopt video learning.

Future studies can examine the effectiveness of video learning in courses other than AIS. Future studies could also compare the effectiveness of video learning with other learning interventions.

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Table 1. Student survey feedback regarding the AIS Video Project

	Questions [a]	Mean (n=200)	Standard Deviation
1	The learning goals of this AIS video project were clear.	6.10	0.73
2	This AIS video project challenged me intellectually.	5.16	1.12
3	This AIS video project enhanced my learning in internal control.	5.68	0.96
4	This AIS video project was an enjoyable way to learn internal control.	6.13	0.85
5	Overall, this AIS video project was a positive learning experience.	6.04	0.83
6	I will recommend this AIS video project for future AIS classes.	6.01	0.96
7	I will recommend other courses to adopt video as a learning pedagogy.	5.62	1.19

a. Survey scale: 1 = strongly disagree; 2 = disagree; 3 = slightly agree; 4 = neutral; 5 = slightly agree; 6 = agree; and 7 = strongly agree.

Table 2. Selected student comments regarding the AIS video project

Selected student comments
"I really enjoyed the video project personally as it provided me with an educational change of pace (from all the reading and understanding). I am currently doing an internship in the Audit and Advisory Division doing internal audit work. The video learning experience provided me with a practical image training that links classroom theory with practical practice understanding. I would say that this change of learning platform really helped me personally understand actual processes easier during my internship."
"The internal controls chapter is quite a dry topic to absorb, not mentioning the heavy content, thus I believe that through this mini project, we are able to digest the content more easily via the funny and entertaining videos produced by different groups!"
"The AIS video project is definitely a teaching innovation. Because we can apply the theory that was taught in class, into a video where picture says a thousand words. It is so much easier to understand the technical terms behind it with a video. The video project allow us to bond with our group mate and it is one of the fun time where we brainstorm for many scenario, the require expression and actions of each one of us and also, help each other to act better by giving comments."
"The AIS video project is by far the most interesting and fun project I have experienced. Like other projects, it teaches us a lot about the topic that the video is about. In addition, it injects a sense of fun into doing a project. At the end of the project, we were able to view all the videos made by everyone. This allows us to see and understand other people's views on the same topic. Overall, this video project is definitely the most innovative and unforgettable project I have ever done and I am sure that future batches of students will benefit from it like I have."
"AIS is a subject that is always changing as we learn more about the ever growing form of challenges in the industry. To teach such syllabus within the context of a textbook really limit our learning capability. I particularly like how the emphasis has been shifted from the focus of a textbook-based learning to our everyday life. Using examples that people can relate to not only allow us to better understand the subject matter but also increases our interest."
"I felt that the AIS video project was a more fun and interesting way to learn about a more content-based topic like internal controls, rather than just reading about it. Watching all the different videos from all the other groups was also very enjoyable compared to our typical project reports or presentations. In addition, with every group providing a discussion question along with their video, it also helped to set the direction of the video, helping us to grasp the concepts better and recall them more easily when we revised our AIS topics.
"It was a creative method to aid in our learning of the topics on internal controls and fraud. Its effectiveness can be explained in two points. Firstly, through the brainstorming process, I feel that we can better understand the concepts as a whole after exploring many different areas of internal controls and fraud. Secondly, we also picked up new ideas and concepts when we viewed the videos created by our peers."

Selected student comments

“This is the first module that I have ever taken that requires the students to work on a video project, so that was something refreshing and new to me. Normally for project, the scope for creativity is rather limited as most projects comes in the form of a standard template, with restrictions on how to present on a certain subject matter, however, for this video project, I would say that it allowed for more creativity to showcase and share about a certain topic. From watching the videos made by others, I was also able to have greater insights into the topic, as there were a total of 16 teams (if I remembered correctly), I was able to learn about control measures through 16 other perspectives, with some touching on different areas of this topic and also shared different examples. The accompanying questions served as an important value-add to the video as it allowed me to continue to think deeper after watching the video.”

“The AIS video project has been effective in encasing theory into something that is easy to comprehend. It injects an element of fun and creativity, something that is lacking in the majority of accountancy courses. The project has not only helped me understand AIS better, but also given me valuable experience in working as a team to tackle new, unfamiliar and exciting challenges."

“Firstly, it adds a fun element to the module. With this video project, we were able to express ourselves creatively. This makes us more relaxed with the course and facilitates group bonding. Secondly, it allows one to see the relevance of AIS. The module might seem a little bit academia to begin with but through this video project, one is able to understand how realistic and important AIS concepts are. For example, password lock is an often overlooked, but highly essential internal control in order to achieve one’s objectives. As such, this video allows students to see AIS in a different light and not just one that is confined to the classroom environment.”

"The AIS video project was a great learning experience. It made the module more interesting and interactive as it managed to integrate fun and creativity with the theoretical concepts of AIS. When embarking on the project, the most challenging part was thinking of a fraud scenario and its internal controls. As such, we had to brainstorm through different kinds of fraud cases. This inadvertently helped us internalise this whole topic and really understand in different ways how fraud can happen and how internal controls can work to counter it. Creating the video was just the fun part of the project. In addition, watching the videos of our other peers was a light-hearted, interactive and interesting way of learning more about AIS. It allowed me to see different points of view of how fraud can be committed and expanded my perspective of the topic. Through this video project, it helped me internalise AIS concepts when translating the academic concepts like what fraud is, what the layers of internal controls are into make-believe but realistic stories."

Appendix: Selected Screenshots of the AIS Video Project

Below are selected screenshots of the AIS video project. Students can choose any format for the video such as acting, using the GoAnimate software to create animations or Videoscribe for whiteboard-style animations.